Do mechanical doctors dream of electric sheep? Using science fiction to look into the future of public health

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ABSTRACT

At a first glance, it may seem that science fiction (SF) and public health have not much in common. To enlighten that this could be untrue, this paper starts up from their shared ‘community perspective’ and focuses on several implications of technological development, which can have a great impact on health and have been in some ways anticipated by SF stories. For example, SF has—more or less directly—discussed about the complex relationship between society, medicine and happiness, and it has anticipated several reflections in the field of advances in genetic technology. Beside tackling specific issues, SF has made a deep reflection about technology itself, the way it frightens and the way it could potentially change people and society. While facing these issues, SF raises questions that can be useful to public health as well, in order to rediscover its role in a world rapidly changing.

Keywords communities, management and policy, public health

What has science fiction (SF) got to do with public health? In our opinion, more than is commonly believed. First of all, from a general point of view, its ‘community perspective’: like SF, public health (PH) focuses on populations rather than individuals. Indeed, even when SF is about individuals, the author has to draft the social context, which cannot be taken for granted, since SF—by definition—is about the unknown. Besides, in SF stories, the unknown social context is almost always what makes the situation unexpected and surprising; the future community scenario is the heart of the story, which gives it its meaning.

SF thus creates possible future worlds and, in describing their make-up, often covers aspects involving health issues, which pervade the core of human society. SF’s imaginary worlds almost always take into account the implications of technological development, which can have a great impact on health and has—more or less directly—been described in SF productions. In some ways, SF stories have anticipated several possible developments in public health and their implications.

For example, one area of health technology that has altered our relation with health is the development of pharmaceutical preparations: it often seems that in a certain omnipotent conception of medicine there is a sort of expectation that for every disease there should be a drug to heal it. For what regards mood conditions, psychoactive substances have been available in human societies since the dawn of time, but never before have hundreds of drugs affecting the central nervous system been discovered, experimented and used. Will we find the pill of happiness? Can we talk about ‘medicine of happiness’? What impact could the fact that medicine has such an objective have on our societies? One possible extreme development of this approach has been dealt with in Aldous Huxley’s brilliant dystopian novel Brave New World, which can be read as an enlightening vision of the control of happiness by means of chemical substances.

The book describes a society that has made people’s happiness its aim. This is achieved by controlling people’s IQ and dispensing an antidepressant called soma free of charge so that no one is sad in this ‘society of happiness’. But, as the misfit Bernard soon realizes, eliminating grief from human life also causes art to disappear, as well as deep
relationships, and freedom is compromised too, when it is society that decides what your life is going to be like. The rationale of dystopia becomes clear when Mustapha Mond, one of the World Controllers, in his famous debate with the Savage, explains that people cannot find happiness by themselves and society has to create the conditions for this to happen, even if the price is sacrificing something in people lives. But Bernard’s reaction to this logic is mad yet lucid at the same time: ‘I'd rather be myself ... myself and nasty. Not somebody else, however jolly.’ And it is hard not to agree with Bernard when he claims the right even to be unhappy, not to dull his senses, to keep his passionate soul, to experience profound emotions, to make his own happiness the result of an inner pursuit, not of a biochemical interaction.

The novel raises the question as to where the limit is between the appropriate and necessary use of substances acting on the nervous system to treat mood disturbances, and their use to avoid suffering, which could affect the subject’s mental development to a certain extent. This issue involves aspects of an ethical nature, yet it also has major political implications: as technology advances, it has to be regulated by someone, and who should have this power? Undoubtedly the representatives elected by the population, but the question of who the scientific advisers in this process should be still remains. In our opinion, PH—a branch of medicine overlapping with ethics and politics—should not be denied an important role in these matters.

Much more than drugs, Brave New World depicts another future development with unimaginable consequences: advances in the field of genetics. The novel describes a eugenetic approach, the deliberate alteration of genetic balance, whereas SF narratives are usually about uncontrollable mutations, often due to the effects of radioactivity and nuclear wars. The most famous examples in SF films include the mutants in Blade Runner (1982) or those in Total Recall (1990), both loosely inspired by two works by Philip K. Dick, respectively, the novel Do Androids Dream of Electric Sheep? (1968) and the short story We Can Remember It For You Wholesale (1966). Regardless of how these genetic mutations happen, SF has tried to imagine how this change could affect our future world. Once again, the question of who should help the decision-makers in the field of genetics is brought up. PH, with its overall view, should not delegate this complex issue to others, thinking it is not its business.

Besides technological developments the PH implications of which have been anticipated by SF, SF has reflected deeply about technology itself. Every day technology is taking up a larger and larger chunk of our lives. Many diagnostic and therapeutic processes require technological tools, and modern medicine would often get nowhere without them. Technology has replaced much human interaction in caring processes, mainly due to scientific advances, but also to the organization of health-care facilities and the economic issues that come into play when rationalizing health-care spending.

Technology is a powerful tool in our hands, but it is fundamental not to become enslaved to it. Human beings actually work for machines in the cult SF film The Matrix, where a huge computer with its artificial intelligence, is actually fed by humans beings—just as we ‘give life’ to machines, it is as if we fear existing for them, at some time in the future. The recent development of clinics for Internet addicts appears to demonstrate that, although artificial intelligence has not yet been developed, depriving us of our freedom as several SF productions have imagined, some people deprive themselves of their own freedom by becoming addicted to the web, a technological tool. In reality, this fear of technology dates back a long way, materializing for the first time in literature in 1818, in the form of Mary Shelley’s Frankenstein’s creation.

Even PH has to deal a lot with technology, with its continuous development and the marketing pressures that come from industry. PH responses to these instances should avert the risk of becoming a slave of technology for the sake of technology itself, so it should be able to provide the decision-makers with the knowledge required to make a choice in the best interest of the population. This would be possible for PH because of its focus on the population and its global perspective in tackling health issues, with the ambitious aim of mediating among ethical and economic issues, with the view of achieving the greatest benefits for the community.

These are just a few thoughts that can be developed from SF works in a PH perspective. SF is so fascinating because it helps us look into the future, and PH professionals should always train themselves to think the unthinkable and to predict the unpredictable, because if they are unable to see into the distance they are unlikely to be effective in making interventions based on the current data in their possession in order to improve the health of the population in 5/10/20 years’ time. To put it another way, SF is a way to talk about the present or possible future scenarios from a different point of view; in the Matrix’s metaphor the protagonist Neo has got to chose between the blue pill—that will take him back to his old life and beliefs—and the red one—the pill that will allow him to access the truth, watching at the same things with new eyes. SF can be used as a sort of red pill, which helps us to change our point of view, and as Morpheus promises a dumbfounded Neo it can be ‘taking the red pill and staying in Wonderland to see how deep the rabbit-hole goes’.
For sure, the rabbit-hole goes really deep. Information is power, and technology has revolutionized data sharing and management, and hence communication processes, changing our societies as SF cleverly predicted before all this happened. One role of PH professionals could be to act as a spotlight in mediating among the several issues that are involved when it comes to health policy decisions (nowadays, when health represents one of the greatest businesses worldwide), averting the onset of a dystopic *Brave New World* while avoiding the uncontrolled development of technologies aimed to their development and not functional to human beings.